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Subject
Allied Paper, Inc /Portage Creek/Kalamazoo River Superfund Site
Time-Critical Removal Action – Former Plainwell Impoundment
Monthly Report (September 2008)

SEDIMENTS

Date
October 15, 2008

Dear Mike·

Attached is the 19th monthly progress report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Time-Critical Removal Action (TCRA). This progress report is submitted in accordance with Section 19A of the February 2007 Administrative Settlement Agreement and Order on Consent (AOC) for Removal Action (Docket No V-W-07-C-863).

If you have any questions, please do not hesitate to contact me.

Sincerely,

ARCADIS

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MONTHLY REPORT FOR THE ALLIED PAPER, INC./PORTAGE CREEK/ KALAMAZOO RIVER SUPERFUND SITE TIME-CRITICAL REMOVAL ACTION – FORMER PLAINWELL IMPOUNDMENT

REPORT #19, SEPTEMBER 2008

PREPARED BY ARCADIS
OCTOBER 15, 2008

ON BEHALF OF THE KALAMAZOO RIVER STUDY GROUP

SUBMITTED TO

MICHAEL RIBORDY, ON-SCENE COORDINATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Monthly Report for the Allied Paper, Inc./Portage Creek/ Kalamazoo River Superfund Site TCRA – Former Plainwell Impoundment

REPORT #19, SEPTEMBER 2008

Significant Developments and Activities During the Period

- On September 8, the KRSG submitted the *63rd Weekly Construction Report for the Plainwell TCRA* to the United States Environmental Protection Agency (USEPA) and MDEQ.

- During the weeks of September 8 and 15, MDEQ was on-site to characterize soil throughout the project area, both in excavated areas and in floodplain areas outside the scope of the TCRA. Soil samples were collected from excavated areas and will be submitted for soil classification analysis.

- On September 15, the KRSG received copies of analytical data for split samples collected by USEPA

- On September 9, 18, 25, 26, and 28, the KRSG submitted copies of analytical data from TCRA sampling activities to USEPA

- On September 10, the KRSG conducted a site tour for USEPA representatives

- On September 15, the KRSG submitted the *18th Monthly Report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site TCRA* for August 2008 to USEPA.

- On September 18 and 19, the KRSG submitted information to USEPA and MDEQ regarding current conditions at the site to keep the agencies informed of response actions and site conditions during the high flow event that occurred during the week of September 15.

- On September 22, the KRSG informed USEPA and MDEQ that the Phase 2 Cofferdam had been repaired in response to the high flows that occurred during the week of September 15, and that excavation activities would commence within three days. MDEQ informed KRSG that regular oversight activities would continue once excavation activities restarted

- On September 23, USEPA hosted a public open house regarding the Plainwell TCRA.

- In September, USEPA issued a fact sheet titled *PCB Cleanup Progress, Updates, and Public Meeting*. The KRSG received a copy of this fact sheet on September 19.

Data Collected and Field Activities Conducted During the Period

- During the week of September 1, the KRSG continued excavation of Removal Area 13B and Mid-Channel Area A; dewatered the Phase 2 Cofferdam; began excavation of the Phase 2 Cofferdam area to install an access dock to the area; continued over-excavating and stockpiling floodplain material in Removal Area 12A to potentially be used as cover in floodplain areas outside of targeted removal areas; continued restoration activities in Removal Area 11A, and continued operating the water control structure (WCS). A nine-part composite soil sample of the stockpiled material that was

over-excavated from Removal Area 12A (TS10001) was collected under the supervision of USEPA and MDEQ. The sample was submitted for diesel range organics (DROs), gasoline range organics (GROs), target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), PCBs, TCL pesticides, total organic carbon (TOC) and Resource Conservation and Recovery Act (RCRA) metal analysis This over-excavated material was potentially going to be used as cover in upland priority areas. Two surface water samples (TS30074 and TS30075) were collected from locations 300 feet downstream and 200 feet upstream, respectively, of Mid-Channel Area A for PCB analysis A rinse blank (TS30076) was also collected. One set of wastewater samples (W_SA4N_X_0014) was collected from the water treatment system located at Staging Area 4N. Each set of wastewater samples consists of one influent (e.g., W_SA4N_Influ_0014), two mid-point (e g., W_SA4N_MidA_0014 and W_SA4N_MidB_0014), and two effluent samples (e.g., W_SA4N_EffluA_0014 and W_SA4N_EffluB_0014). One set of wastewater samples (W_SA5S_X_0012) and samples W_SA5S_Influ_0013, W_SA5S_MidA_0013, and W_SA5S_EffluA_0013 were collected from the water treatment system located at Staging Area 5S One duplicate effluent sample (W_SA5S_Dup_0006) was also collected. Five PCB wipe samples (RO-20-05, RO-170, RO-171, RO-265, and RO-267) were collected from the five roll offs used to store spent carbon prior to discharge to ensure they were properly decontaminated prior to demobilizing from the site Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal, solidified TSCA material was transported to the Wayne County Landfill in Belleview, Michigan for disposal.

- During the week of September 8, the KRSG continued excavation of Removal Area 13B and Mid-Channel Area A; replaced the carbon at the groundwater treatment system located at Staging Area 5S; continued excavation of the Phase 2 Cofferdam area to install an access dock to the area; and continued operating the WCS. Composite samples of sand (TS10002) and topsoil (TS10003) were collected from off-site stockpiles to determine if the material could be used as backfill at the TCRA site. Both source piles were previously sampled in 2007 and were resampled because a sample must be collected for every 10,000 cubic yards of material brought on-site Both samples were submitted for DROs, GROs, TCL VOCs, TCL SVOCs, PCBs, TCL pesticides, and RCRA metal analysis. The topsoil sample was also analyzed for TOC and gradation. A nine-part composite soil sample of the stockpiled material that was over-excavated from Removal Area 12A (TS10004) was collected from nine randomly generated locations and submitted for PCB analysis to compare this result with the PCB results from TS10001. This over-excavated material was proposed for potential use as cover in upland priority areas. Two surface water samples (TS30077 and TS30078) were collected from locations 300 feet downstream and 200 feet upstream, respectively, of Mid-Channel Area A for PCB analysis. A rinse blank (TS30079) was also collected. Two sets of wastewater samples (W_SA4N_X_0015 and W_SA4N_X_0016) were collected from the water treatment system located at Staging Area 4N Samples W_SA5S_Influ_0014, W_SA5S_MidA_0014, W_SA5S_EffluA_0014, W_SA5S_Influ_0015, W_SA5S_MidA_0015, and W_SA5S_EffluA_0015 were collected from the water treatment system located at Staging Area 5S. The USEPA collected a split sample of

W_SA4N_EffluA_0015 (APS-090908-04-WT/W-SA4N-EffluA-0015). One PCB wipe sample (VT-80 090908) was collected from the truck used to remove the carbon from the water treatment system at Staging Area 5S to ensure it was properly decontaminated prior to demobilizing from the site. Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Belleview, Michigan for disposal.

- During the week of September 15, normal work activities were suspended to respond to emergency conditions associated with elevated water levels caused by a heavy rain event during the weekend of September 13 and 14 The water level of the Kalamazoo River crested at the third highest recorded level in history See the *Issues Encountered and Actions Taken* section for additional information. Later in the week, some work began on a temporary dock being constructed to access the Phase 2 Cofferdam Area, and the WCS was operated throughout the week. One set of wastewater samples (W_SA4N_X_0017) was collected from the water treatment system located at Staging Area 4N The treatment system treated and discharged water continuously from September 13 to September 17. Some water from Staging Area 5S was transported to Staging Area 4N for treatment and discharge. Samples W_SA5S_Influ_0016, W_SA5S_MidA_0016, W_SA5_MidB_0013, W_SA5S_EffluA_0016, and W_SA5S_EffluB_0013 were collected from the water treatment system located at Staging Area 5S. The treatment system treated and discharged water continuously from September 15 to September 17. Two PCB wipe samples (VT-2 091708 and VT-30 091908) were collected from the trucks used to transport water between staging areas to ensure they were properly decontaminated prior to demobilizing from the site. Table A summarizes the samples collected Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Belleview, Michigan for disposal

- During the week of September 22, as water levels continued to recede, the KRSG resumed work activities which included excavation of Mid-Channel Area A and Removal Area 13B; excavation of the Phase 2 Cofferdam area to install an access dock to the area; repair of resuspension controls damaged during the previous week's high flow event; and operation of the WCS. Two surface water samples (TS30080 and TS30081) were collected from locations 300 feet downstream and 200 feet upstream, respectively, of Mid-Channel Area A for PCB analysis. A rinse blank (TS30082) was also collected. Wastewater samples W_SA5S_Influ_0017, W_SA5S_MidB_0014, and W_SA5S_EffluB_0014 were collected from the left side of the water treatment system located at Staging Area 5S. Due to the mid-point PCB detection in sample W_SA5S_MidA_0016, collected during the week of September 15, the right side of the carbon treatment system was not used until the carbon could be replaced. Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Belleview, Michigan for disposal.

- During the week of September 29, the KRSG continued excavation of Mid-Channel Area A and Removal Area 13B; continued excavation of the Phase 2 Cofferdam area to install an access dock to the area; constructed access roads in Removal Area 13A; continued restoration of Removal Areas 11A and 12A; repaired resuspension controls damaged during the high flow event; and continued operating the WCS. Ten soil confirmation samples (TS20202 through TS20211) were collected from Removal Area 13B and submitted for PCB analysis. The USEPA collected split samples of TS20202 (APS-092908-41-SD/TS20202) and TS20209 (APS-093008-42-SD/TS20209) One complete set of wastewater samples (W_SA4N_X_0018) was collected from the water treatment system located at Staging Area 4N. Wastewater samples W_SA5S_Influ_0018, W_SA5S_MidB_0015, and W_SA5S_EffluB_0015 were collected from the water treatment system located at Staging Area 5S. USEPA collected a split sample of W_SA5S_EffluB_0015 (APS-092908-05-WT/W-SA5S-EffluB-0015). One duplicate effluent sample (W_SA5S_Dup_0007) was also collected from the water treatment system located at Staging Area 5S. Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Belleview, Michigan for disposal.

- As of September 30, approximately 100,000 cubic yards of material had been excavated from Removal Areas 1, 2A and 2B, 3A and 3B, 4A and 4B, 5, 6A and 6B, 7, 8, 9A, 9B, 10A, 10B, 11A, 11B, 12A, 12B, 13A, 13B, Mid-Channel Areas A, B, and C, the Phase 1 Cofferdam Area, the Phase 2 Cofferdam Area, Upland Areas 3A1, 3A2, 4A1, 6B1, 10B1, 11A1, and 12A1, and Islands 1, 2, and 3

Laboratory Data Received During the Period

- During the week of September 1, the KRSG received analytical data for soil sample TS10001 (DROs and GROs), surface water samples TS30064 through TS30066 (collected in August), and PCB wipe samples RO-20-05, RO-170, RO-171, RO-265, and RO-267.

- During the week of September 8, the KRSG received analytical data for soil sample TS10004, surface water samples TS30067 through TS30069 (collected in August), wastewater sample sets W_SA4N_X_0014, W_SA4N_X_0015, W_SA4N_X_0016, W_SA5S_X_0012, wastewater samples W_SA5S_Influ_0013, W_SA5S_MidA_0013, W_SA5S_EffluA_0013, W_SA5S_Influ_0014, W_SA5S_MidA_0014, and W_SA5S_EffluA_0014, and duplicate sample W_SA5S_Dup_0006, PCB wipe sample VT-80 090908, and TCL VOCs, TCL SVOCs, PCBs, TCL pesticides, TOC, and RCRA metal data for soil sample TS10001.

- During the week of September 15, the KRSG received analytical data for backfill sample TS10002 and TS10003 (DROs and GROs), surface water samples TS30070 through TS30073 (collected in August), wastewater sample set W_SA4N_X_0017, wastewater samples W_SA5S_Influ_0015, W_SA5S_MidA_0015, W_SA5S_EffluA_0015, W_SA5S_Influ_0016, W_SA5S_MidA_0016,

W_SA5_MidB_0013, W_SA5S_EffluA_0016, and W_SA5S_EffluB_0013, PCB wipe samples VT-2 091708 and VT-30 091808, and USEPA split sample APS-090908-04-WT/W-SA4N-EffluA-0015.

- During the week of September 22, the KRSG received analytical data wastewater samples W_SA5S_Influ_0017, W_SA5S_MidB_0014, and W_SA5S_EffluB_0014.

- On September 29 and 30, the KRSG received analytical data for soil confirmation samples TS20202 through TS20208, surface water samples TS30074 through TS30079, wastewater samples W_SA5S_Influ_0018, W_SA5S_MidB_0015, and W_SA5S_EffluB_0015, duplicate sample W_SA5S_Dup_0007 and TCL VOCs, TCL SVOCs, PCBs, TCL pesticides, TOC (TS10003 only), gradation (TS10003 only), and RCRA metal data for samples TS10002 and TS10003.

- The KRSG is awaiting analytical results for confirmation samples TS20209 through TS20211, surface water samples TS30080 through TS30082, wastewater sample set W_SA4N_X_0018, and USEPA split samples APS-092908-41-SD/TS20202, APS-093008-42-SD/TS20209, and APS-092908-05-WT/W-SA5S-EffluB-0015.

Issues Encountered and Actions Taken

- PCBs were detected in the influent, mid-point, and left effluent samples collected from Staging Area 5S on September 5 (wastewater sample set W_SA5S_X_0012). This water was treated as a batch and was not discharged. The samples were collected in the morning after steady rain throughout the day on September 4. KAR Laboratories, Inc informed field personnel in the afternoon of September 5 that PCBs were detected in the left effluent sample; the remainder of the analytical data were not provided until September 8. Since PCBs were not detected in the effluent sample from the right side, field personnel concluded that there might not have been any breakthrough of the carbon filter on the right side of the water treatment system. As such, approximately 20,000 of 36,000 gallons of water from the batch of water with the PCB detections was re-treated in the afternoon of September 5th using only the right side of the treatment system. Samples were collected from the re-treated water on September 6. No water was discharged. When analytical data from the September 5 water treatment event were received, it showed PCB detections in both mid-point samples. According to Substantive Requirements Document (SRD) MIU990025, the carbon in both carbon vessels (on each side of the treatment system) must be replaced immediately if PCBs are detected in the mid-point. As such, no water was treated at Staging Area 5S until the carbon on both sides of the treatment system was replaced. The other 16,000 gallons of water was re-treated after the carbon was replaced. The carbon was already scheduled for semi-annual replacement, so the effluent PCB detections did not alter that schedule Since water was treated and sampled on September 6 before the full analytical data from the September 5 sampling event were known and PCBs were not detected in the effluent samples, the water was discharged during the week of September 8. The carbon on the right side of the treatment system was replaced on September 8 and 9, and the carbon on the left side of the

treatment system was replaced on September 12. Between September 9 and 12, water was only treated on the right side of the treatment system.

- A concrete wall in the Phase 2 Cofferdam Area was revealed after drawing down the water level in that area. The wall fell on September 12 during excavation activities This event should not impact site activities, however the Michigan Department of Natural Resources was contacted and will inspect the area.

- As established in the TCRA Design Report, some floodplain areas may be over-excavated to include material with PCB concentrations believed to be less than 5 milligrams per kilogram (mg/kg). This material can be sampled and potentially reused as cover material to enhance the riparian habitat in upland areas located outside the removal scope of the TCRA. A nine-part composite sample (TS10001) was collected on September 4 from the potentially re-usable soil stockpiled from Removal Area 12A and analyzed for DROs, GROs, TCL VOCs, TCL SVOCs, PCBs, TCL pesticides, TOC, and RCRA metals. Sample TS10001 was collected under the supervision of MDEQ and USEPA and biased towards suspect gray material A PCB concentration of 16.9 mg/kg and a lead concentration of 834 mg/kg were detected in the sample. Sample TS10004 was collected on September 10 from nine random locations within the same soil pile and submitted for PCB analysis to compare the PCB data from the two samples A PCB concentration of 3.2 mg/kg was detected in soil sample TS10004. These results were compared to the applicable Part 201 cleanup criteria and Part 213 risk-based screening levels (RBSLs) provided in MDEQ's Remediation and Redevelopment Division (RRD) Operational Memorandum No. 1 (Table 2, Column #19, Direct Contact Criteria & RBSLs), issued by the MDEQ RRD on January 23, 2006 According to the TCRA Design Report, material with a PCB concentration between 1 mg/kg and 4 mg/kg can only be used as backfill in priority areas that are outside the post-removal 100-year floodplain None of these priority areas are located outside of the 100-year floodplain. In addition, the lead concentration exceeds the Direct Contact Criterion RBSL of 400 mg/kg. As such, the stockpiled material will be transported off-site for disposal, and not used for cover material.

- Heavy rains during the weekend of September 13 and 14 caused the Kalamazoo River water level to rise to record levels Crews worked throughout the week to protect Staging Area 5S, protect the island between the Phase 2 Cofferdam and WCS, and remove pressure on the WCS and Phase 2 Cofferdam.

    - Water overtopped the Phase 2 Cofferdam overflow weir on September 13 and began flowing over the Plainwell Dam spillway on September 14, as designed To address increasing water level elevations, the southern half of the cofferdam was cut off at the emergency overflow weir height to increase the volume of water that could flow over the top of the cofferdam The northern half of the Phase 2 Cofferdam remained at design elevation. During the week of September 22, additional sheet pile and jersey barriers were installed to reduce the flow of water into the Phase 2 Cofferdam Area

- All stop logs were removed from the WCS to maximize the flow of water over the structure. Debris was removed from the WCS as much as possible to increase water flow over the structure. An initial deflection survey was performed on September 17.

- On September 14, erosion of the island between the WCS and Phase 2 Cofferdam was observed. Gabion baskets were installed along the island and covered in concrete grout in an attempt to prevent further erosion of the island. An estimated wedge of 40-50 feet of material was eroded from the island area. After the gabion baskets were installed, crews further enhanced and stabilized the slope with grout and concrete blocks

- Additional river run rock was installed on the west side of the West Channel downstream of the WCS. A combination of rock, grout, gabion baskets, and concrete blocks were installed to address erosion observed at that location.

- A gravel berm was constructed on the north side of Staging Area 5S to prevent potential flooding of the staging area

- An average effluent concentration of 0.05 micrograms per liter (µg/L) was discharged on September 17 from sample set W_SA5S_X_0016. Since water was being treated and discharged continuously at this time, the water could not be held for retreatment. According to the SRD, the PCB quantification level for this site is 0.2 µg/L, and any concentration discharge less than that does not need to be reported Due to the mid-point (right side) detection (0.2 µg/L); the carbon on the right side of the treatment system should be changed Water was only treated on the left side of the treatment system for the duration of the month. On September 30, MDEQ determined that the TCRA was not in violation of the SRD and normal water treatment operations could continue without replacing the carbon. The mid-point detection occurred during an unusual high flow event, so it is not a good representation of the activity of the carbon. Batch treatment of the water resumed after the week of September 15 so that mid-point and effluent concentrations could be monitored before discharging water

Developments Anticipated During the Next Reporting Period

- During the week of October 1, the KRSG is scheduled to continue excavation of Removal Area 13B and the Phase 2 Cofferdam Area; continue site preparation activities to facilitate access to the Phase 2 Cofferdam Area, re-align the sheet pile in Mid-Channel Area A to encompass the northern half of the area; continue restoration activities in Removal Area 11A and 12A, continue to operate the WCS; and continue loading and transporting solidified material to the appropriate landfill.

- During the week of October 6, the KRSG is scheduled to continue excavation of Mid-Channel Area A, Removal Area 13B, and the Phase 2 Cofferdam Area; continue site preparation activities to facilitate

access to the Phase 2 Cofferdam Area, continue to operate the WCS; and continue loading and transporting solidified material to the appropriate landfill.

- During the week of October 13, the KRSG is scheduled to continue excavation of Mid-Channel Area A, Removal Area 13B, and the Phase 2 Cofferdam Area; continue to operate the WCS; host the Monthly Stakeholder's Meeting, and continue loading and transporting solidified material to the appropriate landfill.

- During the week of October 20, the KRSG is scheduled to continue excavation of Mid-Channel Area A, Removal Area 13A, and the Phase 2 Cofferdam Area; continue to operate the WCS; decommission Staging Area 5S; and continue loading and transporting solidified material to the appropriate landfill.

- During the week of October 27, the KRSG is scheduled to continue excavation Removal Area 13A and the Phase 2 Cofferdam Area; continue to operate the WCS; decommission Staging Area 5S; restore Removal Area 13B, begin preparations for the removal of the WCS; and continue loading and transporting solidified material to the appropriate landfill.

- The KRSG will continue to submit the *Weekly Construction Report for the Plainwell TCRA* to USEPA and MDEQ in October.

- The KRSG will continue to submit copies of analytical data from TCRA sampling activities to USEPA in October.

- Throughout October, the KRSG will, as necessary, continue to submit Subcontractor Qualification Notifications to USEPA, as required by Paragraph 11 of the TCRA AOC

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Former Plainwell Impoundment TCRA
Monthly Report #19, September 2008

Table A — Summary of Samples Collected and Data Received in September 2008

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Soil Confirmation Samples									
TS20202 [1]	09/29/08	09/30/08	084049	KAR Labs	RA 13B, Grid 1 (BS) TSCA	PCBs	< 0 33 mg/kg	5 mg/kg	None
APS-092908-41-SD/TS20202		***NR***	***NR***	***TriMatrix Laboratories***	***RA 13B, Grid 1 (BS) TSCA***	***PCBs***	-	-	-
TS20203		09/30/08	084049	KAR Labs	RA 13B, Grid 2 (BS) TSCA	PCBs	0 56 mg/kg	5 mg/kg	None
TS20204					RA 13B, Grid 3 (BS) TSCA	PCBs	< 0 33 mg/kg	5 mg/kg	None
TS20205					RA 13B, Grid 1 (BS)	PCBs	0 53 mg/kg	5 mg/kg	None
TS20206					RA 13B, Grid 2 (BS)	PCBs	< 0 33 mg/kg	5 mg/kg	None
TS20207					RA 13B, Grid 3 (BS)	PCBs	< 0 33 mg/kg	5 mg/kg	None
TS20208			084052	KAR Labs	RA 13B, Grid 4 (BS)	PCBs	< 0 33 mg/kg	5 mg/kg	None
TS20209 [1]	09/30/08	NR	NR	KAR Labs	RA 13B, Grid 7 (BS)	PCBs	-	-	-
APS-093008-42-SD/TS20209		***NR***	***NR***	***TriMatrix Laboratories***	***RA 13B, Grid 7 (BS)***	***PCBs***	-	-	-
TS20210		NR	NR	KAR Labs	RA 13B, Grid 6 (BS)	PCBs	-	-	-
TS20211					RA 13B, Grid 5 (BS)	PCBs	-	-	-
Aggregate Samples									
TS10002	09/09/08	09/18/08 (KAR Labs) and 09/30/08 (TAL)	083725 (KAR Labs) and TCRA81_SDSP (TAL)	KAR Labs and TAL	Composite sample collected from sand pile used for backfill Second sample from this source (K25713)	PCBs, TCL VOCs, TCL SVOCs, RCRA Metals, DROs, GROs, and TCL Pesticides	<0 052 mg/kg	1 mg/kg	None, all concentrations below MDEQ standards
TS10003	09/09/08	09/18/08 (KAR Labs) and 09/30/08 (TAL)	083725 (KAR Labs) and TCRA81_SDSP (TAL)	KAR Labs and TAL	Composite sample collected from topsoil pile used for restoration Second sample from this source (K25728)	PCBs, TCL VOCs, TCL SVOCs, RCRA Metals, DROs, GROs, TOC, gradation and TCL Pesticides	<0 078 mg/kg	1 mg/kg	None, all concentrations below MDEQ standards
Soil Reuse Sample									
TS10001	09/04/08	09/05/08 (KAR Labs) and 09/11/08 (TAL)	083674 (KAR Labs) and TCRA77_SDSP (TAL)	KAR Labs and TAL	9-part composite sample from over-excavated floodplain material in Removal Area 12A to potentially be used as cover in upland priority areas Collected under the supervision of USEPA and MDEQ	PCBs, TCL VOCs, TCL SVOCs, RCRA Metals, DROs, GROs, TOC, and TCL Pesticides	16 9 mg/kg	4 mg/kg	Do not use as cover PCB and Lead concentration (834 mg/kg) exceeded applicable criteria [2] Material transported to landfill for disposal
TS10004	09/10/08	09/11/08	083764	KAR Labs	Resample of soil pile from TS10001 Collected from nine random locations	PCBs	3 2 mg/kg	4 mg/kg	Can be used as cover outside of 100-year floodplain No priority areas exist outside of 100-year floodplain Material transported to landfill for disposal

See Notes on Page 6

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Former Plainwell Impoundment TCRA
Monthly Report #19, September 2008

Table A — Summary of Samples Collected and Data Received in September 2008

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Surface Water Samples									
TS30064	08/15/08	09/02/08	TCRA72_SDSP	TAL	300' downstream RA 12A	PCBs	< 0 062 mg/L	-	None
TS30065					200' upstream RA 12A	PCBs	< 0 050 mg/L	-	None
TS30066					Rinse Blank	PCBs	< 0 049 mg/L	-	None
TS30067	08/21/08	09/08/08	TCRA74_SDSP	TAL	300' downstream RA 12A	PCBs	< 0 057 mg/L	-	None
TS30068					200' upstream RA 12A	PCBs	< 0 051 mg/L	-	None
TS30069					Rinse Blank	PCBs	< 0 060 mg/L	-	None
TS30070	08/28/08	09/16/08	TCRA76_SDSP	TAL	300' downstream Mid-Channel Area A	PCBs	< 0 056 mg/L	-	None
[TS30071]					300' downstream Mid-Channel Area A	[PCBs]	[<0 055 mg/L]	[-]	[None]
TS30072					200' upstream Mid-Channel Area A	PCBs	< 0 056 mg/L	-	None
TS30073					Rinse Blank	PCBs	< 0 053 mg/L	-	None
TS30074	09/05/08	09/30/08	TCRA79_SDSP	TAL	300' downstream Mid-Channel Area A	PCBs	< 0 048 mg/L	-	None
TS30075					200' upstream Mid-Channel Area A	PCBs	< 0 050 mg/L	-	None
TS30076					Rinse Blank	PCBs	< 0 047 mg/L	-	None
TS30077	09/12/08	09/30/08	TCRA82_SDSP	TAL	300' downstream Mid-Channel Area A	PCBs	< 0 047 mg/L	-	None
TS30078					200' upstream Mid-Channel Area A	PCBs	< 0 049 mg/L	-	None
TS30079					Rinse Blank	PCBs	< 0 051 mg/L	-	None
TS30080	09/26/08	NR	NR	TAL	300' downstream Mid-Channel Area A	PCBs	-	-	-
TS30081					200' upstream Mid-Channel Area A	PCBs	-	-	-
TS30082					Rinse Blank	PCBs	-	-	-
Wastewater Samples									
W_SA4N_Influ_0014	09/05/08	09/08/08	083697	KAR Labs	Staging Area 4N, Discharge 14, influent sample	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_MidA_0014					Staging Area 4N, Discharge 14, midpoint sample, right side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_EffluA_0014					Staging Area 4N, Discharge 14, effluent sample, right side	PCBs, TSS, P	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0 07 mg/L, No Action Limit
W_SA4N_MidB_0014					Staging Area 4N, Discharge 14, midpoint sample, left side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_EffluB_0014					Staging Area 4N, Discharge 14, effluent sample, left side	PCBs, TSS, P	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0 05 mg/L, No Action Limit

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Table A — Summary of Samples Collected and Data Received in September 2008

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Wastewater Samples (continued)									
W_SA4N_Influ_0015	09/09/08	09/10/08	083724	KAR Labs	Staging Area 4N, Discharge 15, influent sample	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_MidA_0015					Staging Area 4N, Discharge 15, midpoint sample, right side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_EffluA_0015 1					Staging Area 4N, Discharge 15, effluent sample, right side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	*None* TSS = <4 mg/L, Action Limit = 45 mg/L
APS-090908-04-WT/W-SA4N-EffluA-0015		***09/15/08***	***0809144***	***TriMatrix Laboratories***	***Staging Area 4N, Discharge 15, effluent sample, right side***	***PCBs***	***< 0.2 µg/L***	***0.2 µg/L per discharge, Monthly***	***None***
W_SA4N_MidB_0015		09/10/08	083724	KAR Labs	Staging Area 4N, Discharge 15, midpoint sample, left side	PCBs	< 0 1 µg/L	*No Action Limit*	*None*
W_SA4N_EffluB_0015					Staging Area 4N, Discharge 15, effluent sample, left side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L
W_SA4N_Influ_0016	09/11/08	09/12/08	083779	KAR Labs	Staging Area 4N, Discharge 16, influent sample	PCBs	0 4 µg/L	No Action Limit	None
W_SA4N_MidA_0016					Staging Area 4N, Discharge 16, midpoint sample, right side	PCBs	< 0 1 µg/L	*No Action Limit*	*None*
W_SA4N_EffluA_0016					Staging Area 4N, Discharge 16, effluent sample, right side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L
W_SA4N_MidB_0016					Staging Area 4N, Discharge 16, midpoint sample, left side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_EffluB_0016					Staging Area 4N, Discharge 16, effluent sample, left side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L
W_SA4N_Influ_0017	09/16/08	09/18/08	083847	KAR Labs	Staging Area 4N, continuous discharge from Sept 13 to 17, influent sample	PCBs	0 3 µg/L	No Action Limit	None TSS = 13 mg/L, No Action Limit
W_SA4N_MidA_0017					Staging Area 4N, continuous discharge from Sept 13 to 17, midpoint sample, right side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_EffluA_0017					Staging Area 4N, continuous discharge from Sept 13 to 17, effluent sample, right side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L
W_SA4N_MidB_0017					Staging Area 4N, continuous discharge from Sept 13 to 17, midpoint sample, left side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA4N_EffluB_0017					Staging Area 4N, continuous discharge from Sept 13 to 17, effluent sample, left side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L

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Table A — Summary of Samples Collected and Data Received in September 2008

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Wastewater Samples (continued)									
W_SA4N_Influ_0018	09/30/08	NR	-	KAR Labs	Staging Area 4N, discharge 18, influent sample	PCBs	-	-	-
W_SA4N_MidA_0018					Staging Area 4N, discharge 18, *midpoint sample, right side*	PCBs	-	-	-
W_SA4N_EffluA_0018					Staging Area 4N, discharge 18, effluent sample, right side	PCBs, TSS	-	-	-
W_SA4N_MidB_0018					Staging Area 4N, discharge 18, midpoint sample, left side	PCBs	-	-	-
W_SA4N_EffluB_0018					Staging Area 4N, discharge 18, effluent sample, left side	PCBs, TSS	-	-	-
W_SA5S_Influ_0012	09/05/08	09/08/08	083679	KAR Labs	Staging Area 5S, Discharge 12, influent sample	PCBs	0 6 µg/L	No Action Limit	None
W_SA5S_MidA_0012					Staging Area 5S, Discharge 12, midpoint sample, right side	PCBs	0 2 µg/L	No Action Limit	Yes, change carbon
W_SA5S_EffluA_0012					Staging Area 5S, Discharge 12, effluent sample, right side	PCBs, TSS, P	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0 23 mg/L, No Action Limit
W_SA5S_MidB_0012					Staging Area 5S, Discharge 12, midpoint sample, left side	PCBs	0 2 µg/L	No Action Limit	None
W_SA5S_EffluB_0012					Staging Area 5S, Discharge 12, effluent sample, left side	PCBs, TSS, P	0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	Retreat water before discharge TSS = <4 mg/L, Action Limit = 45 mg/L, P=0 21 mg/L, No Action Limit
[W_SA5S_Dup_0006]							[0 1 µg/L]	[0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L]	[Retreat water before discharge TSS = <4 mg/L, Action Limit = 45 mg/L, P=0 24 mg/L, No Action Limit]
W_SA5S_Influ_0013	09/06/08	09/09/08	083699	KAR Labs	Staging Area 5S, Discharge 13, influent sample	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_MidA_0013					Staging Area 5S, Discharge 13, midpoint sample, right side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_EffluA_0013					Staging Area 5S, Discharge 13, effluent sample, right side	PCBs, TSS, P	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0 19 mg/L, No Action Limit

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Table A — Summary of Samples Collected and Data Received in September 2008

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Wastewater Samples (continued)									
W_SA5S_Influ_0014	09/10/08	09/11/08	083765	KAR Labs	Staging Area 5S, Discharge 14, influent sample	PCBs	0 1 µg/L	No Action Limit	None
W_SA5S_MidA_0014					Staging Area 5S, Discharge 14, midpoint sample, right side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_EffluA_0014					Staging Area 5S, Discharge 14, effluent sample, right side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L
W_SA5S_Influ_0015	09/12/08	09/15/08	083803	KAR Labs	Staging Area 5S, Discharge 15, influent sample	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_MidA_0015					Staging Area 5S, Discharge 15, midpoint sample, right side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_EffluA_0015					Staging Area 5S, Discharge 15, effluent sample, right side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L
W_SA5S_Influ_0016	09/16/08	09/18/08	083847	KAR Labs	Staging Area 5S, continuous discharge from Sept 15 to 17, influent sample	PCBs	1 1 µg/L	No Action Limit	None
W_SA5S_MidA_0016					Staging Area 5S, continuous discharge from Sept 15 to 17, midpoint sample, right side	PCBs	0 2 µg/L	No Action Limit	Yes, change carbon
W_SA5S_EffluA_0016					Staging Area 5S, continuous discharge from Sept 15 to 17, effluent sample, right side	PCBs, TSS	0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = 4 mg/L, Action Limit = 45 mg/L, P=0 23 mg/L, No Action Limit
W_SA5S_MidB_0013					Staging Area 5S, continuous discharge from Sept 15 to 17, midpoint sample, left side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_EffluB_0013					Staging Area 5S, continuous discharge from Sept 15 to 17, effluent sample, left side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0 21 mg/L, No Action Limit
W_SA5S_Influ_0017	09/22/08	09/24/08	083959	KAR Labs	Staging Area 5S, Discharge 17, influent sample	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_MidB_0014					Staging Area 5S, Discharge 17, midpoint sample, left side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_EffluB_0014					Staging Area 5S, Discharge 17, effluent sample, left side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L

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Table A — Summary of Samples Collected and Data Received in September 2008

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Wastewater Samples (continued)									
W_SA5S_Influ_0018	09/29/08	09/30/08	084048	KAR Labs	Staging Area 5S, Discharge 18, influent sample	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_MidB_0015					Staging Area 5S, Discharge 18, midpoint sample, left side	PCBs	< 0 1 µg/L	No Action Limit	None
W_SA5S_EffluB_0015 [1]					Staging Area 5S, Discharge 18, effluent sample, left side	PCBs, TSS	< 0 1 µg/L	0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L
APS-092908-05-WT/W-SA5S-EffluB-0015		***NR***	***NR***	***TriMatrix Laboratories***		***PCBs***	-	-	-
[W_SA5S_Dup_0007]		09/30/08	084048	KAR Labs		[PCBs, TSS]	[< 0 1 µg/L]	[0 2 µg/L per discharge, Monthly Average of 2 6 x 10-5 µg/L]	[None TSS = <4 mg/L, Action Limit = 45 mg/L]
PCB Wipe Sample									
RO-20-05	09/02/08	09/03/08	083620	KAR Labs	Wipe samples from the roll offs used to store spent carbon	PCBs	< 0 1 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None
RO-170							< 0 1 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None
RO-171							< 0 1 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None
RO-265							< 0 1 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None
RO-267							< 0 1 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None
VT-80 090908	09/09/08	09/10/08	083733	KAR Labs	Wipe sample from truck used to remove carbon from water treatment system at SA 5S	PCBs	< 0 1 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None
VT-2 091708	09/17/08	09/18/08	083847	KAR Labs	Wipe samples from trucks used to transport water between staging	PCBs	< 0.1 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None
VT-30 091808	09/18/08	09/19/08	083879	KAR Labs		PCBs	0 3 µg per 100 cm^2	10 µg per 100 cm^2 [3]	None

Notes.
1 - Split sample collected by USEPA
2 - Analytical results compared to applicable Part 201 cleanup criteria and Part 213 RBSLs provided in MDEQ's RRD Operational Memorandum No 1 (Table 2, Column #19, Direct Contact Criteria & RBSLs)
3 - The decontamination standard for non-porous materials previously in contact with PCB-containing liquid according to Federal Regulations (Title 40, Chapter 1, Subchapter R, Part 761 79 3)
J - The compound was positively identified, however, the associated numerical value is an estimated concentration only
* USEPA split samples are shown in bold and italicized font
* Duplicate samples are shown in brackets
* Analytical results have not been validated

BS - bank sample
DRO - diesel range organic
GRO - gasoline range organic
MDEQ - Michigan Dept of Environmental Quality
NR - not received
P - phosphorus
SVOCs - semivolatile organic compounds
TAL - TestAmerica Laboratories
TCL - target compound list
TOC - Total Organic Carbon
TSCA - Sample collected from portion of sampling grid with PCB concentrations greater than 50 mg/kg prior to excavation
PCBs - polychlorinated biphenyls
RA - Removal Area
RBSL - Risk Based Screening Level
RCRA - Resource Conservation and Rec
RRD - Remediation Redevelopment Divi
SA - Staging Area
TSS - total suspended solids
VOCs - volatile organic compounds
cm^2 - square centimeters
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
µg/L - micrograms per liter